

## INTERNATIONAL SEARCH REPORT

International application No.

PCT/JP2004/014603

**A. CLASSIFICATION OF SUBJECT MATTER**  
Int.Cl<sup>7</sup> H01L21/762, H01L27/12, H01L29/786, H01L21/336

According to International Patent Classification (IPC) or to both national classification and IPC

**B. FIELDS SEARCHED**

Minimum documentation searched (classification system followed by classification symbols)

Int.Cl<sup>7</sup> H01L21/762, H01L27/12, H01L29/786, H01L21/336

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Jitsuyo Shinan Koho	1922-1996	Jitsuyo Shinan Toroku Koho	1996-2004
Kokai Jitsuyo Shinan Koho	1971-2004	Toroku Jitsuyo Shinan Koho	1994-2004

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

**C. DOCUMENTS CONSIDERED TO BE RELEVANT**

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	JP 07-335735 A (Nippondenso Co., Ltd.), 22 December, 1995 (22.12.95), Par. Nos. [0020] to [0029]; Fig. 1 (Family: none)	1,3,6,7,12, 13,15
Y	JP 05-021465 A (Fujitsu Ltd.), 29 January, 1993 (29.01.93), Full text; all drawings (Family: none)	2,4,5,8-11, 14 16-32
A		2,5
Y	JP 2003-152191 A (Semiconductor Energy Laboratory Co., Ltd.), 23 May, 2003 (23.05.03), Full text; all drawings & US 2003/0141504 A1 Full text; all drawings	4,5,11

 Further documents are listed in the continuation of Box C. See patent family annex.

## \* Special categories of cited documents:

- "A" document defining the general state of the art which is not considered to be of particular relevance
- "E" earlier application or patent but published on or after the international filing date
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"&" document member of the same patent family

Date of the actual completion of the international search  
16 December, 2004 (16.12.04)Date of mailing of the international search report  
11 January, 2005 (11.01.05)Name and mailing address of the ISA/  
Japanese Patent Office

Authorized officer

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## C (Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	JP 2001-102442 A (Oki Electric Industry Co., Ltd.), 13 April, 2001 (13.04.01), Full text; all drawings (Family: none)	8, 9
Y	JP 2000-150664 A (Toshiba Corp.), 30 May, 2000 (30.05.00), Par. Nos. [0037] to [0054]; Fig. 1 (Family: none)	10
Y	JP 10-209453 A (Toshiba Corp.), 07 August, 1998 (07.08.98), Full text; all drawings (Family: none)	14
E, A	JP 2004-349702 A (Sharp Corp.), 09 December, 2004 (09.12.04), Full text; all drawings (Family: none)	16-32